



393187

ILD 981096340

 Del Val  
 9/27/85

		POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		I. IDENTIFICATION 01 STATE 02 SITE NUMBER ILD 048228142	
II. SITE NAME AND LOCATION					
01 SITE NAME (Legal, common, or descriptive name of site)		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER			
R.K. Petroleum Co.		S 1/2 of SE 1/4 of Sect 12, T7S, R2E			
03 CITY		04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE 08 CONG DIST
Denning Township		IL	62863	Franklin	053 22
09 COORDINATES LATITUDE LONGITUDE		West Frankfort 2638 7.5 Quad			
37 56 26.0   088 55 42.0					
10 DIRECTIONS TO SITE (starting from nearest public road)					
SEE ATTACHED MAP					
III. RESPONSIBLE PARTIES					
01 OWNER (if known)		02 STREET (Business, mailing, residential)			
Anthony Arklam		RR #1			
03 CITY		04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER	
West Frankfort		IL	62896	( ) UNKNOWN	
07 OPERATOR (if known and different from owner)		08 STREET (Business, mailing, residential)			
R.K. Petroleum		Box 192			
09 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER	
MT. Carmel		IL	62863	( ) UNKNOWN	
13 TYPE OF OWNERSHIP (Check one)					
<input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)					
<input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 a) DATE RECEIVED: _____ MONTH DAY YEAR <input checked="" type="checkbox"/> C. NONE					
IV. CHARACTERIZATION OF POTENTIAL HAZARD					
01 ON SITE INSPECTION		02 BY (Check all that apply)			
<input type="checkbox"/> YES DATE _____ MONTH DAY YEAR <input checked="" type="checkbox"/> NO		<input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify)			
		CONTRACTOR NAME(S): _____			
03 SITE STATUS (Check one)		04 YEARS OF OPERATION			
<input type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input checked="" type="checkbox"/> C. UNKNOWN		BEGINNING YEAR _____ ENDING YEAR _____ <input checked="" type="checkbox"/> UNKNOWN			
05 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED					
Oily WASTE (Toxic); HEAVY METALS (Soluble/Toxic/Persistent)					
06 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION					
Groundwater (population / Environment)					
V. PRIORITY ASSESSMENT					
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)					
<input type="checkbox"/> A. HIGH (Inspection required if promptly) <input checked="" type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspect on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)					
VI. INFORMATION AVAILABLE FROM					
01 CONTACT		02 OF (Agency/Organization)		03 TELEPHONE NUMBER	
				( )	
04 PERSON RESPONSIBLE FOR ASSESSMENT		05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Rich Lange		IEPA	HSCS	217 782-6760	09 26 85 MONTH DAY YEAR

## II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES <i>Check all that apply</i>	02 WASTE QUANTITY AT SITE <i>Measures of waste quantities must be independent</i>	03 WASTE CHARACTERISTICS <i>Check all that apply</i>
A SOLID B POWDER FINES <input checked="" type="checkbox"/> C SLUDGE D OTHER _____ <i>(Specify)</i> E SLURRY F LIQUID G GAS	TONS CUBIC YARDS <b>UNKNOWN</b> NO OF DRUMS	<input checked="" type="checkbox"/> A TOXIC <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> C RADIOACTIVE <input checked="" type="checkbox"/> D PERSISTENT <input checked="" type="checkbox"/> E SOLUBLE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> G FLAMMABLE <input type="checkbox"/> H IGNITABLE I HIGHLY VOLATILE J EXPLOSIVE K REACTIVE L INCOMPATIBLE M NOT APPLICABLE

### III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SILUDGE			
OLW	OLY WASTE	UNKNOWN	UNKNOWN	Crude Oil
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	(OTHER ORGANIC CHEMICALS	UNKNOWN	UNKNOWN	Brine Waste
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	UNKNOWN	UNKNOWN	Brine Waste

#### IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

[illegible]

## V. FEEDSTOCKS (see Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

## VI. SOURCES OF INFORMATION (Cite specific references, e.g. state fees, sample analysis reports)

Federal S.I.A. #00943



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
ILD 048228142

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A GROUNDWATER CONTAMINATION  
03 POPULATION POTENTIALLY AFFECTED: 10,000

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

Highly Soluble brine waste placed for disposal in unlined lagoon. This practice has impacted private wells as similar facilities

01 ☐ B SURFACE WATER CONTAMINATION  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☐ C CONTAMINATION OF AIR  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☐ D FIRE/EXPLOSIVE CONDITIONS  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☐ E DIRECT CONTACT  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☒ F CONTAMINATION OF SOIL  
03 AREA POTENTIALLY AFFECTED: UNKNOWN  
(Across)

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

Loss of production (Ag land) and damage to soil structure has been noted at similar sites (see J following) (See 05 Other following)

01 ☒ G DRINKING WATER CONTAMINATION  
03 POPULATION POTENTIALLY AFFECTED: 10,000

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☒ POTENTIAL ☐ ALLEGED

SEE "A" ABOVE

01 ☐ H WORKER EXPOSURE/INJURY  
03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED

01 ☐ I POPULATION EXPOSURE/INJURY  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE \_\_\_\_\_)  
04 NARRATIVE DESCRIPTION

☐ POTENTIAL ☐ ALLEGED



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

ILD 048228142

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

The near sterilization of soils (> 5 acres), Attributed to increased soil salinity, has been noted at other similar sites (See F above) (See 05 other following)

01 ☐ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (Include name(s) of species)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills, leaks, standing liquids, leaking drums)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

Site was infrequently inspected by regulatory agencies, Facility has now been backfitted making illegal dumping hard to detect.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS

Denuding of soils by brines is deemed leading cause of soil erosion in several Illinois Counties

III. TOTAL POPULATION POTENTIALLY AFFECTED: 10,000

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

S.I.A. STUDY

## EXECUTIVE SUMMARY

This site has been placed in the ERRIS data base as a result of its identification during the federally funded Surface Impoundment Assessment (SIA) study of 1980. During ERRIS placement the operator name and business address were utilized from the SIA which results in deviations from ERRIS for actual site location, Part I section II items 02 through 08 of form 2070-12. This use of operator name and address has also led to one (1) ERRIS listing representing, in actuality, from one (1) to one hundred eight (108) actual brine pits at an equal number of separate locations.

Some considerable effort has been expended to select the site with highest, Phase II SIA, pollution potential when available where multiple sites are represented by a single ERRIS listing. One must keep in mind that the Phase II SIA represents no more than 7 percent of the brine pits identified in Illinois. Phase I identified more than 3200 pits where Phase II evaluated a random selection of less than 220. One must also maintain a realization that Phase II pollution potential was determined by bench top study with little or no actual site visitation or monitoring. This site did not receive Phase II evaluation although the operator was placed on ERRIS. All identified sites associated with this operator will therefore receive Preliminary Assessment.

Minimal to no file information exists on this site beyond that contained in Phases I of the SIA. There is no direct evidence of hazardous waste disposal at this site beyond the potentially hazardous constituents of Illinois Basin brines, but with only annual inspections by Illinois Mines and Minerals staff relevant to oil production practices and recent backfilling of most brine pits in Illinois, disposal of off site material of unknown nature is possible. A literature review and laboratory analysis of samples from two other sites indicate concern for contamination of groundwater/surface water by Sodium, Sulfate, Chloride etc. (Non-Hazardous Constituents), concern for heavy metals (i.e., Chrome, Vanadium, Barium) and long chain hydrocarbons.

A question arises as to the addressability of the heavy metals by CERCLA when one considers 40 CFR section 300.6 "Definitions - Federally Permitted Release (i)" and Section 101(10) of CERCLA. The statement "and which are reinjected" seems to allow CERCLA action, but interpretation and clarifications by USEPA legal staff seems required. The long chain hydrocarbons would appear to be included in the exclusion given to crude oil and fractions thereof under 40 CFR section 300.6 "Definitions-Hazardous Substance" and 101(14) of CERCLA.

A medium priority has been assigned due to the potential impact of this site on groundwater in a rural area where private wells are generally the sole source for potable water. Similar sites have impacted private wells to a point requiring users to seek alternative sources for drinking water. A site inspection should be scheduled to verify/update owner-operator information and gain more thorough site specific information.

